DOCUMENT RESUME

ED 109 571 CG 009 980

AUTHOR Rogan, Paul J.
TITLE Time Orientation of Young Male First Offenders as a Function of Period of Imprisonment and Race. Criminal Justice Monograph Volume VI, Number 1.
INSTITUTION Sam Houston State Univ., Huntsville, Tex. Inst. of Contemporary Corrections and the Behavioral Sciences.
SPONS AGENCY Texas Criminal Justice Council.
PUB DATE 75
NOTE 36p.

EDRS PRICE MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS *Adjustment (to Environment); Comparative Analysis; Males; *Prisoners; *Psychological Tests; *Racial Factors; Research Projects; Socioeconomic Status; *Time Perspective
IDENTIFIERS *Temporal Orientation Questionnaire; TOQ

ABSTRACT

This research attempted to identify differences, or lack of them, in time orientation of Caucasian, Black and Chicano young male first offenders at various periods of imprisonment; beginning, middle, and end. The instrument that was chosen to measure time orientation was a combination of two questionnaires--the Time Competence scale of the Personal Orientation Inventory (POI) and six of nine subscales of the Temporal Orientation Questionnaire (TOQ). The data indicated that: (1) inmates' ability to respond in a time competent manner increases as they progress through imprisonment; (2) involvement in the past decreases, but not to a significant degree; (3) involvement in the present changes during imprisonment, with Black and Chicano inmates accepting the present in the middle of imprisonment to a greater degree than Caucasians; and (4) involvement in the future varies significantly by racial group but not by period of imprisonment. (Author/PC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED109571

CRIMINAL JUSTICE MONOGRAPH

Vol. VI, No. 1
1975

TIME ORIENTATION OF YOUNG MALE FIRST OFFENDERS AS A FUNCTION OF PERIOD OF IMPRISONMENT AND RACE

Paul J. Rogan

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Institute of Contemporary Corrections
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

INSTITUTE OF CONTEMPORARY CORRECTIONS AND THE BEHAVIORAL SCIENCES

INSTITUTE OF CONTEMPORARY CORRECTIONS
AND THE BEHAVIORAL SCIENCES
SAM HOUSTON STATE UNIVERSITY
HUNTSVILLE, TEXAS 77340

EDITORIAL ADVISORY BOARD

GEORGE G. KILLINGER, PH.D., CHAIRMAN

GEORGE J. BETO, PH.D. JERRY L. DOWLING, J.D.

ROBERT A. SHEARER, PH.D.

ADMINISTRATION OF MONOGRAPH

GEORGE G. KILLINGER, PH.D.
Director of Institute

CHARLES M. FRIEL, PH.D.
Director Monograph Series

This MONOGRAPH was prepared for use in the Center for Continuing Education in Criminal Justice under grant from the Criminal Justice Council of Texas.

Copyright © 1975
By
Institute of Contemporary Corrections and The Behavioral Sciences
Sam Houston State University

The CRIMINAL JUSTICE MONOGRAPH is designed to provide interested citizens and professionals in the criminal justice field with a series of articles on the problems of crime and delinquency. The series includes both experimental studies and theoretical paper on problems in law enforcement, corrections, probation and parole, criminology, criminal law, forensic psychology and social welfare. The MONOGRAPH is not restricted to any particular philosophic approach to the prevention and control of crime and delinquency but encourages an eclectic discussion of all problems pertinent to the criminal justice system.

Permission to quote excerpts is granted on condition that appropriate credit is given the author and the MONOGRAPH. Request for permission to reprint an entire article should be addressed to the Director of the Institute.

(Entered as Second-Class Mail Matter, August 24, 1912, at the Post Office at Huntsville.)

ED109571

CRIMINAL JUSTICE MONOGRAPH

Vol. VI, No. 1

TIME ORIENTATION OF YOUNG MALE FIRST OFFENDERS AS A FUNCTION OF PERIOD OF IMPRISONMENT AND RACE

Paul J. Rogan

INSTITUTE OF CONTEMPORARY CORRECTIONS
AND THE BEHAVIORAL SCIENCES
SAM HOUSTON STATE UNIVERSITY
Huntsville, Texas 77340

TABLE OF CONTENTS

PAGE

LIST OF TABLES ii
LIST OF FIGURES iii

INTRODUCTION 1
Problem 1
Purpose 3
Methods and Procedure 3
REVIEW OF THE LITERATURE 7
Time Orientation and Institutionalization 7
Time Orientation and Race 8
Time Orientation and Other Variables 10
ANALYSIS OF DATA 12
SUMMARY OF FINDINGS AND
RECOMMENDATIONS 16
Summary of Findings 16
Relation to Previous Research 16
Recommendations for Further Research 17
BIBLIOGRAPHY 19
APPENDICES 22
Appendix A. Revised Time Competence Subscale
of the POI 22
Appendix B. Revised Selected Subscales of the TOQ 23
Appendix C. Original Time Competence Subscale
of the POI 24
Appendix D. Selected Subscales of Original TOQ 25
Appendix E. Answer Sheet and Consent Form 26
Appendix F. Administered Instrument 28

LIST OF TABLES

TABLE	PAGE
1. Outline of Selected TOQ Subscales	5
2. Mean Ages of the Various Groups in Years	12
3. Mean Test I.Q.'s of the Various Groups	12
4. Mean Maximum Sentence Lengths of the Various Groups in Days	12
5. Type of Crimes for which Various Group Members were Convicted	13
6. Computation of Analysis of Variance for Mixed Model of the Factoral Design	13
7. Analysis of Variance of Time Competence Scores	13
8. Analysis of Variance of Time Orientation Questionnaire Past Scores	14
9. Analysis of Variance of Time Orientation Questionnaie Present Scores	14
10. Analysis of Variance of Time Orientation Questionnaire Future Scores	14
11. Correlation Coefficients for Entire Sample on All Variables	15

LIST OF FIGURES

FIGURE PAGE

1. Configuration of Parts and Null Hypotheses in the Analysis of Variance of a Mixed Model of the Factoral Design 13
2. Mean Time Competence Scores of the Various Racial Groups by Period of Imprisonment 13
3. Mean Time Orientation Questionnaire Past Scores of the Various Racial Groups by Period of Imprisonment 14
4. Mean Time Orientation Questionnaire Present Scores of the Various Racial Groups by Period of Imprisonment 14
5. Mean Time Orientation Questionnaire Future Scores of the Various Racial Groups by Period of Imprisonment 15

INTRODUCTION

Problem

Since the Attica riot and other recent prison disturbances, there has been much public discussion about the need for prison reform. Many private groups, and a growing number of correctional agencies, have felt an urgency to consider the reorganization of prisons to some type of a rehabilitative structure or model.

With the increasing interest in this vein, there has been concern by some in evaluating the effects of imprisonment on the inmates of prisons, as they now exist. Questions are raised, for instance, about the impact of imprisonment on the prisoner's personality and attitudes and how this relates to subsequent adjustment and behavior in the community after release (American Friends Service Committee, 1971; Griswald, Misenheimer, Powers, Tromanhauser, 1971; Hood and Sparks, 1970).

Surprisingly, the literature in this area is not as comprehensive as one might expect. By contrast, there is a fairly large volume of literature concerning the social organization that exists as a result of imprisonment (Clemmer, 1958; Sykes, 1958; Cressy, 1961). One could speculate as to why there is such a discrepancy in interest between the two areas, especially when it is considered that both are important in making major policy decisions in corrections.

One personality variable that has been receiving increasing interest by behavioral scientists is that of time orientation. The manner in which one approaches the problem of time is now generally accepted as an important aspect of personality functioning (Fraisse, 1963). Studies have investigated a variety of populations including geriatric patients (Wallach and Green, 1961), alcoholics (Roos and Albers, 1965), schizophrenics (Wallace, 1956), criminal psychopaths (Friel and de Aboitiz, 1968), and juvenile delinquents (Brandt and Johnson, 1953). These studies and others have associated a number of variables with time orientation that point to the importance of differing temporal outlooks in understanding behavior. Stated simply, how a person views his future, interprets his past and sees his present is crucial in determining behavior (Kummel, 1966).

For no other group, perhaps, is time more of an issue than it is for prison inmates. The importance of time to this group is described by Galtung (1961), who himself has been imprisoned:

> ...time becomes essential and so important that it is almost considered a thing, concrete and materialized. The extent to which time becomes a concern of all prisoners, except some of the most adjusted is surprising to nonprisoners. Detailed calculations as to amount of time left, and meditation on how that time could have been spent with the other identity, certainly are not bed-time reflections only or once-an-hour thoughts. Concern for time seems to be an almost constant and painful state-of-mind (Galtung, 1961, p. 113).

Given this apparent importance of time to prisoners, it is interesting to note that there are but several studies investigating the general area of time attitudes and orientation of prison inmates. In one such study, Farber (1944) found that in determining the variables that are associated with the extent of suffering of inmates, that the time perspectives, especially outlook towards the future, are a primary factor.

Landau (1969) investigated the effects of length of imprisonment and subjective distance from release on future time perspective and time estimation of a group of prison inmates. Among the many conclusions she stated, that the time of release is the boundary for future time perspective; and among all sentence lengths, as release approaches, there is a greater differentiation and extension in future planning. The precise meaning of this study is somewhat confounded by the lack of control for sentence lengths (four to thirty-three years), age and ethnic origin, and also by the multiple measurements taken.

Another study by Megargee, Price, Frohwirth and Levine (1970) was interested in inmates' time orientation at various periods during imprisonment. The particular measurement used indicated the pleasantness or unpleasantness, attractiveness or unattractiveness of the past, present and future. The results showed that inmates at all stages of imprisonment view the future most pleasant and the past more pleasant than the present.

Besides pointing to new topics of investigation, this prior research indicates several important considerations that should be taken into account when designing time orientation studies of prison inmates. To begin, the period or stage of the prisoners' imprisonment must be taken into consideration, since both logic and past research indicate that this would affect a time orientation measurement (Landau, 1969).

Secondly, the instrument that is selected to measure time orientation is important because of the variety of approaches to and aspects of time measurement. Indeed it has been noted that with the multitude of methodological techniques and time definitions utilized, comparison of time orientation research is not possible or is highly questionable at best (Wallace and Rabin, 1960). Given this myriad of approaches to time measurement, it is

believed that a researcher must conceptualize what aspects of time are considered to be important before he selects an instrument.

When one investigates the human experience of time, it becomes apparent that it is necessary to consider time not only in its parts as past, present and future, but also in its entirety and wholeness. Actually, one confronts here the long-standing philosophical problem of time as a succession of moments or time as duration. Kummel's (1966) point is well taken when he writes:

> ...time is never a splintered series of successive moments but always a whole from the point of view of which the possibility of its fragmentation may be understood. Time is traditionally described as a **fragmentation** of successive vanishing moments; one can, however, just as logically assert the **integrity** of time based on the inner correlation and coexistence of its parts. **Only the two definitions taken together can fully describe the nature of time** (Italics his) (Kummel, 1966, p. 45).

The importance of understanding time in this way can perhaps be further demonstrated by considering the traditional parts of time and seeing how they specifically relate. Wulff (1969) writes that the past can be described as:

> ...the realm of present "nows" which have become "no longer." ... It is in the past that we have learned to move and to speak, to recall and to anticipate; it is the past which provides a basis for enjoying and understanding what we are experiencing now and for projecting and preparing for what we hope—and sometimes fear—will occur in the future (Wulff, 1969, p. 10).

Of the present Wulff comments:

> To live in the present is a mark of reality orientation, for the present is where one is as a physiological organism and where all activity occurs; and to become absorbed in what one is doing requires a temporary letting go of concern of the past and future, living unself-consciously in the present. Yet to live **only** in the present is to be a victim of constantly fluctuating change, to be cut off from the directing and stabilizing influence of past and future (Wulff, 1969, p. 9).

Finally, in considering the future, Wulff states:

> Though the future may be the least "real" of the three time zones—for at least the past once was, and, in some sense, still can be known—it also is, many say, the most influential. Whether one's future is open or closed will make all the difference in how one experiences his present and interprets his past, through, at the same time, the present and the past creates the future (Wulff, 1969, p. 13).

Briefly then, it has been concluded here that a measurement must take into account a person's total time span—past, present and future—because of the interrelation that exists between these parts of time.

Thirdly and finally, another more subtle factor that should be considered in prison population time orientation studies is the racial and ethnic make-up of the sample. The above-mentioned research by Landau (1969), which was conducted in Israel, suggests that there are differences in time orientation and estimation between Oriental and Western subjects. Other research in time orientation and race indicate that there are significant differences between racial groups. Stone (1971) found that in studying time orientation, inner control and aspiration level among Caucasian and Mexican-American seventeen year olds, the latter were more past oriented. In investigating the future time perspective of adolescent Caucasian and Black males, Wolf (1970) found that the Black subjects had significantly less future extension and anticipated fewer positive future events. Research by Roberts and Greene (1971), however, indicates that simple cultural sterotypes pertaining to time orientation were not supported by their research of American Indians, Caucasians and Mexican-Americans. They suggest that the meaning of time scores must be examined against the background of the variables being measured.

A critical evaluation of the approaches that have been taken in examining the effects of imprisonment in relation to time orientation demonstrate the need to study a rather homogeneous prison population, in terms of age and sentence (Landau, 1969), and at the same time to dichotomize for ethnic and racial factors. Such an approach should help to make the relationships that exist more clear. As was mentioned, selection of an instrument is important in determining exactly what is to be measured. It is believed that an adequate measure of time orientation must reflect involvement in or concern with the entire temporal span—past, present and future (Kummel, 1966; Wulff, 1969).

A study organized as such could explore and verify questions of both a theoretical and practical nature. The prison experience has the feature of superimposing certain time relations upon the life of a person. An imprisoned man has a sentence of such a duration; he has served so much time and expects to serve so much more time. One could ask how these different time relationships affect attitudes, personality, emotions and behavior (Farber, 1944). In relation to the specific problem here, questions could be asked concerning the effect that these time relationships have on time orientation. Going further, questions could be asked as to how differences in race influence the perception of time within these particular time relationships.

Aside from the theoretical inquiries, this research raises some practical questions about the inmates' experience of imprisonment that could be important and useful to correctional policy makers. For example, do inmates at the beginning of their imprisonment view the future as vague and unimportant? Do Blacks view the future (or

past or present) differently from Caucasians or Chicanos? These questions could have an important bearing on understanding inmates' adjustment in prison and their involvement in institutional programs.

One of the goals of imprisonment is to teach the inmate to consider the present and future consequences of his actions. But, do Caucasians, Blacks and Chicanos have the same time orientation at the end of imprisonment? If they do not, perhaps pre-release programs should be developed that are suited to the specific needs of a given racial or ethnic group to emphasize goal setting and planning.

An understanding of how imprisoned men of different races and at different periods of their incarceration view the entire time span can help both the criminologist and the correctional practitioner in evaluating how one particular attitude is influenced by imprisonment, and perhaps make everyone more aware of the effects of imprisonment.

Purpose

The purpose of this study is to attempt to identify differences, or the lack of them, in time orientation of Caucasian, Black and Chicano young, first offenders at various stages of imprisonment; namely, beginning, middle and end. The aim is to come to a clearer understanding of how the experience of imprisonment affects the temporal orientation of these trichotomized groups.

Basic Assumptions

In undertaking this study, there were three assumptions made.

Assumption One. The data collected from the subjects' Inmate Summary Forms were assumed to be accurate.

Assumption Two. The replies to the administered instrument were assumed to be honest and candid.

Assumption Three. The randomly selected groups of inmates at the end of imprisonment would have been similar to the group of inmates at the beginning and middle of imprisonment if they had been tested at that time.

Variables

The dependent variable in this study was the measure of time orientation that was represented by a given subject's score on the Personal Orientation Inventory's Time Competence Scale (Shostrom, 1964) and the selected Temporal Orientation Questionnaire scales (Wulff, 1969) categorized as Past, Present and Future.

The independent variables in this study were the stages or periods of imprisonment of the subjects—beginning, middle and end—and the racial characteristics—Caucasian, Black and Chicano.

Hypotheses

1. At the beginning of imprisonment, Caucasian, Black and Chicano inmates will show significant differences in their Time Competence mean scores.
2. At the middle of imprisonment, Caucasian, Black and Chicano inmates will show significant differences in their Time Competence mean scores.
3. At the end of imprisonment, Caucasian, Black and Chicano inmates will show significant differences in their Time Competence mean scores.
4. Caucasian inmates at the beginning, middle and end of imprisonment, will show significant differences in their Time Competence mean scores.
5. Black inmates at the beginning, middle and end of imprisonment, will show significant differences in their Time Competence mean scores.
6. Chicano inmates at the beginning, middle and end of imprisonment, will show significant differences in their Time Competence mean scores.

Basic Questions

In an effort to develop a strategy to analyze the data, the following basic questions have been formulated:

1. Does a review of the literature reveal significant differences of time orientation of Caucasian, Black and Chicano inmates at the beginning, middle and end of imprisonment?
2. Will the Time Competence subscale of the Personal Orientation Inventory significantly differentiate Caucasian, Black and Chicano inmates at the beginning, middle and end of imprisonment?
3. Will the computed correlation coefficients of the entire sample on all variables: type of crime, age, I.Q., maximum sentence, Time Competence subscale of the Personal Orientation Inventory and the selected subscales of the Temporal Orientation Questionnaire, suggest a low, medium or high degree of association?

Methods and Procedure

Sample

The total sample consisted of 180 subjects from the population of the Ferguson Unit of the Texas Department of Corrections. These young, male, first offenders were chosen randomly from a pool of subjects who met the criteria set down in the study.

Subjects from three different stages of imprisonment—beginning, middle and end—were tested as to their time orientation. Each stage of imprisonment had sixy (60) subjects with equal representation of

Caucasian, Black and Chicano to make subgroups of twenty (20) each.

The stages of imprisonment have been operationally defined as follows:

1. **Beginning**—inmates who are in the first ten weeks of imprisonment with the Texas Department of Corrections.
2. **Middle**—inmates who have been imprisoned for at least six months and are at least six months from parole eligibility.
3. **End**—inmates who are enrolled in a pre-release program at the Ferguson Unit.

Since it is believed that it is important for generalizibility to have as homogeneous a sample as possible in making a measurement of time orientation of a prison population (Landau, 1969), the following criteria for subject selection were established. The age of the subjects is in the range of seventeen (17) to twenty-two (22) years of age. A cut-off point for I.Q. of the subjects was set at seventy (70). To measure intelligence, the Texas Department of Corrections uses the Revised Beta Form. The sentence lengths ranged from four (4) years to ten (10) years. All data of a descriptive nature used in this study was taken from TDC Inmate Summary Forms of each individual subject.

Since research has indicated that there is reason to suspect that socioeconomic status influences temporal orientation (Le Shan, 1952; Cottle, Howard and Pleck, 1969), the sample will include only those inmates of lower range socioeconomic status. Parental occupation was deemed the simplest and most direct way to determine a subject's socioeconomic status. As a result, subjects were asked to indicate the occupation or job at which their parents are employed, as demonstrated on the answer sheet in Appendix E.

Since the aim was to eliminate subjects, who by way of their background, would be unusual to the major portion of the prison population, the occupations were broken down into two wide categories. The first group consisted of occupations categorized as unskilled, semi-skilled, or manual labor jobs and lower level white collar jobs. This category is much wider than the second and was the one utilized to include subjects in the study because it is believed that a vast majority of the prison population's parental occupations would fall into this division. The second group consisted of occupations categorized as professional, management and business executive level. The responses of these subjects were eliminated from the study for the reasons cited.

In addition to the above information, the type of crime, violent or non-violent, for which a given subject was convicted was noted but not used to dichotomize the sample. An analysis was made to determine if type of crime shows a significant relationship to time orientation as measured here.

Instrument

The instrument that was chosen to measure time orientation was a combination of two questionnaries. Both were designed to be measures of the total time span—past, present and future. As has been mentioned, this was felt to be an important aspect of a time orientation measure.

Shostrom (1964) developed a questionnaire called the Personal Orientation Inventory (POI) to measure the concept of self-actualization (Maslow, 1962). Shostrom (1964, pp. 214-215) has presented a collection of descriptive adjectives that give an outline of the differentiation between non-self-actualizing and self-actualizing persons that would be helpful to those unfamiliar with the concept. Adjectives describing non-self-actualizing people would include: puritanical, anxious, rigid, inhibited, egocentric, sensitive, dependent, ambivalent, hostile and dominating. Adjectives describing self-actualizing people would include: involved, imaginative, enthusiastic, enriched, responsible, discriminating, gracious, unassuming, capable and open. Concisely then, the self-actualizing personality is one which is more fully functioning and lives a more content life than does the average person.

One of the subscales making up the POI is designed to measure "Time Competence." As Shostrom describes it, a person who is time competent:

> ...appears to live in the here and now more fully and is able to tie the past and the future to the present in meaningful continuity. He is less burdened by guilts, regrets and resentments from the past than is the non-self-actualized person, and his aspirations are tied meaningfully to present working goals. He has faith in the future without rigid or idealistic goals (Shostrom, 1964, p. 212).

The Time Competence scale has twenty-three (23) items and has a two choice response selection which is so stated to allow the end-poles of each item to be made clear to the subject. The numerical value that represents the score, indicates the Time Competent responses selected by the subject. This numerical value can be put in the form of a Time Incompetent/Time Competent ratio (TI/TC). The Time Competent person obtains a ratio of about 1:8 or a numerical value of approximately 20, as compared to the Time Incompetent person who scores a ratio of about 1:3 or a numerical value of approximately 17. For use here, the Time Competent score will be reported using the numerical value.

Besides having been used in a wide variety of research, the POI has been used previously in research with prison populations and was found to be capable of identifying significant differences between groups. Fisher and Silverstein (1969a) found that the analyses of variance of 600 California Department of Corrections felons, who were administered the POI, indicated that the various unspecified groups differed in their scores on all twelve (12) scales, including the "Time Competence" scale, to the .001 level. In another study, Fisher (1968) found that felons described as psychopathic, showed differing per-

formance on the POI from a group of normals. Fisher and Silverstein (1969b) used the POI to study simulation of poor adjustment in groups of prison inmates designated as experimentals and controls, and found significant differences. Finally, Knapp (1972) used the POI in research on a group or delinquent Navy brig males.

For the purposes of this research, considering the population studied, the vocabulary of the questionnaire was revised to a simpler level without changing the content. A copy of the revised Time Competence scale is shown in Appendix A and a copy of the original form of the subscale is shown in Appendix C.

The second part of the instrument consists of selected subscales of the Temporal Orientation Questionnaire (TOQ). D. M. Wulff developed the TOQ in 1969 in a doctoral dissertation at the University of Michigan after an exhaustive review of the literature of time orientation and its measurement. The TOQ was originally tested on nine different groups for a total of 477 subjects. The reliabilities for all of the scales range from .51 to .80 and the F values were all significant at the .01 level or less. The five-point rating scale was used to indicate agreement.

For the purposes of this research, six (6) of the nine (9) subscales of the original TOQ were chosen and categorized in this study as Past, Present or Future. The TOQ portion of the instrument can be outlined as presented in Table 1.

Wulff (1969) suggests that the TOQ has the advantage of not being as personally intrusive as other techniques and apparently less affected by temporary condidtions than projective measures. In addition, subjects report that it is interesting to take.

TABLE 1

Outline of Selected TOQ Subscales

TOQ Subscale	Description in This Study	Number of Items	Direction
Distant Past	Past	9	2 Positive 7 Negative
Personal Past			
Present	Present	9	2 Positive 7 Negative
Distant Future			
Personal Future	Future	13	6 Positive 7 Negative
Direction			
Totals		31	10 Positive 21 Negative

In a manner similar to that used by Wulff, the respondents had a choice of five categories from which to make their selection on each item. The weight assigned to each item was as follows:

Items with a positive direction:

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
4	3	2	1	0

Items with a negative direction:

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
0	1	2	3	4

In this Likert summated rating method, the summation of the score on each individual item given the subject's total score in the Past, Present or Future time zones. The total score obtained in each time zone represented the involvement of the subject in that time zone.

Since, as Wulf (1969, p. 99) has noted, the TOQ is probably too sophisticated for persons of lower socioeconomic groups; the TOQ has been revised to a simpler vocabulary level. In addition, several items are believed to have a middle class bias. These references to such things as books, museums and galleries in only four of the items have been replaced with more appropriate ones, or eliminated. These slight revisions were made, keeping in mind the intent of the original Temporal Orientation Questionnaire. A copy of the revised Time Orientation Questionnaire subscales is shown in Appendix B and a copy of the original is shown in Appendix D.

Procedure

After introducing himself, the researcher told the subjects that he was interested in their reaction to some questions about how they view time. It was made clear that the researcher had no connection with the Texas Department of Corrections and that he was there strictly as a guest. The subjects were informed that their participation was voluntary and that their identity would be kept anonymous. It was explained that the questionaire would be administered by means of a tape recorder and would take approxiamtely an hour to complete. An inquiry was made to determine whether the subjects could understand spoken English. The subjects were asked if there were any questions and were informed that if they did not wish to participate that they should say so at that time. Consent forms were passed out and subjects were asked to sign and date them.

Next, answer sheets were distributed and subjects were informed that the code at the bottom of the sheet was for categorizing purposes only and that their names would not be associated with their answer sheet. It was emphasized that there were not "right" or "wrong" answers, and that the researcher was only interested in how they truthfully felt about each item. The subjects were told that there were two parts to the test and that there would be a brief break at the end of the first part so that any missed items could be repeated. Tape recorded examples were given, and it was made certain that the subjects understood how to select responses to the first part. During the break, after an opportunity was given to have questions repeated, subjects were informed how

answers to the second part of the test could be selected. Tape recorded examples were also given. At the end, the subjects were again given an opportunity to have questions repeated. Subjects were asked if they could clearly hear the tape recorded examples before the testing began.

As was mentioned, the instrument was administered by means of a tape recorder. Each item was repeated twice. There was a ten (10) second pause between the first and second statement of each item, and a twenty (20) second pause after the second statement, before moving on to the next item. The voice that appeared on the tape was that of a Caucasian male and was not the voice of the researcher.

The testing took place during June and July, 1973, and was done in a room assigned by the administration at the Ferguson Unit of the Texas Department of Corrections. The size of each testing group was kept between five (5) and ten (10) subjects.

Units of Analysis

The units of analysis used to differentiate the trichotomized groups were the mean scores on the Time Competence scale and the mean scores on the selected Temporal Orientation Questionnaire subscales, categorized as Past, Present and Future. The items on the Time Competence scale can also be classified as Past, Present and Future.

The raw Time Competence score represents the accumulated Time Competent responses. Since there are twenty-three (23) items, the total possible score is twenty-three (23). When the Time Competence score is broken down into tense scores, the Present and Future maximum score is eight (8) and the Past maximum score is seven (7).

The raw scores on the Temporal Orientation Questionnaire subscales represent the involvement and concern with a given time zone. Since the TOQ subscales use a five choice response selection, the total possible score for the Past and Present scales is thirty-six (36). Likewise, since the Future scale has thirteen (13) items, the total possible score is fifty-two (52).

In addition, other data of a descriptive nature, namely: type of crime, age I.Q., and maximum sentence length, were collected on subjects and used in the analysis.

Data analysis

The data were analyzed by the use of two statistical operations. Analysis of variance was used to test differences among the mean scores of the trichotomized groups on the Time Competence scale of the Personal Orientation Inventory. Correlation coefficients were computed on the entire sample to determine the extent of the relationships of all eleven (11) variables, namely: type of crime, age, I.Q., maximum sentence length, Time Competnece score, Time Competence tense scores and the selected subscales of the TOQ categorized as Past, Present and Future. The level of significant differentiation for both operations was established at the .05 level.

Definition of Terms

Time Orientation. The direction or orientation—past, present or future—of the person's temporal experience (Dilling and Rabin, 1967).

REVIEW OF THE LITERATURE

Time Orientation and Institutionalization

As has been indicated previously, social scientists' interest in time orientation has shown a marked increase over the last ten to fifteen years. One area in which there has been considerable interest, is the time orientation of various groups of people labeled as criminal deviants. The purpose here of a brief review of the studies in this area, is to demonstrate how the variable of institutionalization was considered and handled.

Interestingly enough, specific discussion and consideration of the institutionalization of subjects in these studies is brief or nonexistent. Two prominent studies dealing with time orientation of criminal deviants by Ricks, Unbarger and Mack (1964), and Stein, Sarbin and Kulik (1968), avoided the problem by comparing two groups of non-institutionalized subjects.

Two different studies compared institutionalized groups. Friel and de Aboitiz (1968) examined the temporal orientation of prison inmates labeled as psychopaths and a control group of imprisoned normals. Siegman (1961) compared a group of young offenders and army recruits on measurements of future time perception, time estimation and impulse control. Although prison and the military have both been described as characteristic of "total institutions" (Goffman, 1961), there have been some questions raised as to their nature and comparability on such measurements (Landau, 1969, p. 215). In neither of these studies was there an attempt to control for length of imprisonment or distance from release.

Lastly, three studies compared institutionalized and non-institutionalized groups, and, apparently, completely disregarded institutionalization as a factor in the time orientation of subjects. In probably the most often noted study of time orientation and delinquency, Brandt and Johnson (1955) compared institutionalized male adolescents with a control group of adolescents from a small public high school. Davids, Kidder and Reich (1962), in a study that essentially is a replication of Brandt and Johnson's, compared similar type groups. Davids and Parenti (1958) compared emotionally disturbed children who were hospitalized, with control groups of summer campers and grade school students on a test of time orientation. Again, in none of these studies was an effort made to control or make allowances for length of imprisonment or distance from release.

Although these studies did not really consider institutionalization as a factor, there are a number of other studies that have investigated the relationship between time orientation and institutionalization. Fink (1957) studied the relationship of time orientation to age, activity and institutionalization in sixty aged males. His results indicated that the institutionalized group was more concerned with the past and less concerned with the future than the non-institutionalized group. Also, institutionalization, more so than age, was found to be more important in channeling a subject's time perspective toward the past. Occupational and leisure time activities were found to relate to a future time perspective in the non-institutionalized group, while organizational activities had no relation to the time perspective an individual maintained in the institutionalized group.

In an earlier study, Wallace (1956) investigated the future time perspective of long and short term schizophrenic patients. In comparing the results of the patients to a control group of normals who were institutionalized for much shorter periods, he found that institutionalization in itself was not crucial in explaining the results obtained. However, he was quick to mention that such a conclusion was tentative and awaits further research in which a more adequate control of the variables is utilized.

Calkins (1970), working as a staff member of a rehabilitation institution for the physically handicapped, observed differing time perspectives and styles of time usage by patients. She describes a number of differing typologies that are used in experiencing time in such a situation. For example, patients developed strategies of time usage categorized by Calkins as "passing time," "waiting," "doing time," "making time," "filling time," and "killing time." She suggests that shifts in time perception and styles of usage are likely to be taken for granted by the patients themselves as these changes tend to take place gradually over extended periods of time. She concludes that the social structure of different settings may very well preclude the emergence of particular styles of time usage.

Moving to studies that deal specifically with time orientation and prison type institutionalization, a report by two British sociologists, Cohen and Taylor (1970), summarized the findings of their rather informal study of the experience of time in a special group of extremely long term prisoners. Through the course of teaching social science topics to these long term prisoners over a period of three years, the authors were able to collect a vast amount of data from poems, essays and general discussions. They found that, except for a few jokes, the future was almost a taboo subject, with the little amount of talk concerning it, to be of a fantasy nature. They report that for these men, the predictability of the future was depressingly total, to the point that the reality of future time became distorted.

The past was the main area of concern and was divided up into "good times" and "bad times," with a majority of

the talk devoted to the latter. Although passing time is the biggest problem, getting involved in the present was found to be difficult for these long termers. A major concern is the fear of psychological deterioration which the prisoners found particularly appalling because of the realization that it can happen without one's awareness.

Although this study is limited from the standpoint of understanding the time orientation of the average prison inmate, given the special nature of the subjects' situation, it is important in helping to understand the effects of long term prison type institutionalization and the almost total lack of hope for release.

Another investigator, Galtung (1961) makes a number of very interesting observations about predictability and the experience of time in prison. He comments about the structuring of time in prison as it relates to the prison structure; namely, institutional regularity that means for the inmate, regularity where past, present and future become essentially copies of each other. The prison routine, no matter how good it can be made, has such a degree of predictability, that there are no threats and no challenges. Galtung suggests that the desire for an unpredictable experience in such a situation is perhaps stronger that the desire for a pleasant experience which may be partial explanation for all types of deviant behaviors in prison.

One of the initial studies that treated the time orientation of prisoners was conducted by Farber (1944). The aim of his research was to better understand the main factors determining prison behavior. After extensive interviews with a number of inmates, he concluded that the dominant factor influencing an inmate's behavior in prison was his perceived need to be released from prison and his accesss to that goal. Factors in the day-to-day environment were of little importance. Instead, how the inmate viewed time, particularly future time, was the crucial determining variable. For these imprisoned men, Farber found that the date of release represented the boundary of an effective future time perspective, as the date that the sentence was imposed was the main boundary of the effective past.

In a doctoral dissertation at Michigan State University Laffety (1963) investigated the relationship between impulsivity and temporal experience in prisoners. Using the TAT to measure future time orientation, he found that the prisoners showed little involvement in future time. Very low correlations were obtained between the unreliable figures available indicating prior and remaining time in prison and future time orientation scores of the TAT. It should be mentioned that the TAT, used for measuring time orientation, has given conflicting results and low reliabilities (Wulff, 1969, p. 32).

Megargee, Price, Frohwirth and Levine (1970) undertook a study of the time orientation of youthful prison inmates at the Federal Correctional Institution in Tallahasee, Florida. Using the Time Reference Inventory (TRI) developed by Philip Roos (Roos and Albers, 1965), they tested twenty men in each of three groups categorized as beginning, middle and end of imprisonment. Their results indicated that all three groups showed primary focus on the future, with secondary focus on the past and only minimal fixation on the present.

The authors conclude that the stereotype of youthful offenders as being primarily people who are oriented toward the present, as a vast majority of the research indicates, is misleading. In conjuction with this, they go on to imply that imprisonment in a treatment oriented institution is perhaps responsible for the resulting measured time focus of these inmates. However, if one examines the nature of the TRI, there is some question as to the accuracy of these conclusions. The TRI basically does not measure a subject's time orientation, but rather measures his preference of time zones as pleasant or unpleasant, attractive or unattractive (Wulff, 1969, p. 57). In addition, an aspect of the TRI that asks the subjects for age estimations, was found to be so unreliable and inconsistent that the scores were not computed. As a result this study could be more correctly said to indicate how imprisoned men at various stages of imprisonment view the pleasantness of the three time zones.

Landau (1969) conducted an extensive study of the effects of imprisonment and a prisoner's subjective estimation of distance from release, on future time perspective and time estimations of Israeli prison inmates. She reports that the future time perspective of inmates at the beginning of imprisonment is much less definite and distinct than inmates at the end of imprisonment, across all sentence lengths but especially short ones. She suggests that only when one is relatively close to the date of release, does the future take on concrete meaning, so that actual planning will be undertaken.

In addition, Landau reports that inmates become increasingly more consistent in estimating time as they near release. She suggests this results from developing a more stable internal clock the longer one stays imprisoned. In addition, it is interesting to note that the closer the subjects were to release, the better they performed on an intelligence test.

An inspection of the studies presented here supports a further investigation into imprisoned men's time orientation and indicates a need to study a rather homogeneous group in terms of age and length of sentence (Landau, 1969, p. 220), and additionally to use time orientation measurements that give a truer, clearer picture of how one views time.

Time Orientation and Race

Differences in attitudes and orientations between racial groups has long been recognized by social scientists conducting attitudinal research. Dreger and Miller (1960) have reviewed over one hundred of these studies that dichotomized between Black and Caucasian subjects. They note that differences in response patterns between

the two groups are found in a number of areas, including social perception, vocational choice, self attitudes, family organization, mental and social role structure. Differences in cultural background and position in the social structure, clearly indicate the rationale for distinguishing racial and ethnic groups in attitudinal studies.

The work that has been done on time orientation and race is by no means comprehensive. This can be attributed in part to the relative recent interest of social scientists into the area of time orientation.

Speaking specifically in terms of prison time orientation studies and racial or cultural differentiation, only Landau's (1969) study of an Israeli prison has undertaken an analysis to determine possible differing orientations. Her investigation found that Oriental subjects had estimated short time intervals in a more distorted way than Western subects. In addition, she discovered that Oriental subjects had longer future time perception, but were less reality bound than Western subjects.

The study that initially compared racial groups on a measure of time orientation was conducted by Brock and Del Giudice (1963). Here the researchers tested sixty (60) Caucasian and sixty (60) Black grade school boys and girls of a low class neighborhood on their willingness to take advantage of an opportunity to steal, and their future time extension. Although there was a relationship established between stealing behavior and temporal orientation, there was no relationship between these variables and race. The total results of the experiment have been questioned however (Wolk, 1970), since results from the story telling technique for measuring temporal orientation have been contradictory and show low reliabilities (Wulff, 1969, p. 30).

Horton (1967), in a participant-observer type study of Black ghetto men's time orientation, noted that "street time" was built around the irrelevance of clock time—white man's time—and the relevance of street activities and happenings. Basically, these men live for the present, yet they have a vague, fantasy type image of the future that includes both themselves and their race.

In a Fordham University doctoral dissertation, Wolk (1970) examined the future time perspective of Caucasian and Black males in early adolescence. Results indicated that Black responded with significantly less future orientation than Caucasians. For instance, Black subjects felt they were moving slower into their futures and expected fewer status and role changes than Caucasians. Also, Caucasians demonstrated significantly greater future extension, significantly greater organization in regard to anticipated future occurrences, and expected a significantly larger number of positive things to happen than Black subjects did.

Moving to other social and cultural groups, Roberts and Greene (1971) studied ten and sixteen year old Caucasian, Chicano and American Indian children on measures of temporal orientation, using a story telling technique. Finding the number of statistically significant differences in their data to be rather few, the authors concluded that the stereotyping of cultural groups, along dimensions of time orientation, did not hold up under complex analyses. They suggest that a thorough investigation reveals more complex and diversified relationships.

In an exhaustive doctoral dissertation, Graves (1962) investigated time perspective and deferred gratification patterns of 123 Anglo, Spanish and Indian high school students. The analysis of data found that Anglo students had a longer temporal extension than non-Anglo subjects, but the statistical significance was varied. It is interesting to note in comparing the groups of subjects on time extension that the differences between the Anglo and Indian groups showed a high level of significance, while differences between the Anglo and Spanish groups showed a low level of significance, and at the same time, differences between Spanish and Indian groups indicated a medium level of significance.

Graves also measured the extension into the past of the varied groups. In ability to extend into the past of six months ago and beyond, the groups ranked: Anglo, Spanish and Indian. However, in ability to extend into the past of six months ago to the present, the groups ranked: Indian, Spanish and Anglo. In overview, Graves found differences between Anglos, Spanish and Indians on time perception and gratification patterns, however, the statistically significant support was varied and rather inconsistent.

Earlier research by Florence Kluckhohn (1954) actually initiated the interest in the empirical study of cross cultural time perspective. For her, time orientation serves as one of the five universal problems of man and she writes that there are but three orientations that can be taken: past, present and future. Although each society will have involvement in each time zone, the main standard of orientation will vary from group to group. Her research, conducted in Southwestern United States, indicates that Anglos of that area were involved with the future while the Spanish speaking people were concerned more with the present.

Research by other investigators basically agrees with Kluckhohn. Saunders (1958) writes:

> Like other aspects of culture our attitudes towards time are so much a part of us and seem so right and natural that it is difficult to understand how anyone could have a different point of view. That a person could have no particular concern for the future is almost inconceivable to an Anglo. That an Anglo will sacrifice the present for some possible gain in the dubious future is likely to be equally inconceivable to anyone reared in a Spanish American or Mexican village (Sauders, 1958, p. 159).

Stone (1971), in her doctoral dissertation studied control, aspiration level and time orientation of 176 eleventh grade students from two racial groups—Caucasian and Mexican American. Her major finding indicated that

Mexican American students were less future oriented and more past oriented than Caucasians.

Other reports in the sociology and social psychology literature point to the impact that certain life situations can have on time orientation. Oscar Lewis (1961), in writing about the common traits that people in the culture of poverty have, points to the strong present orientation of the poor and their resignation about the future. Considering that historically, Blacks and Mexican Americans have been long overrepresented in the ranks of the American poor, this observation becomes particularly relevant to the topic at hand.

Somewhat in the same vein, it is interesting to note a study mentioned by Faisse (1963) that was conducted by Baruk in 1952, concerning people who remained affected by the deportation and racial persecution of World War II. Baruk found that these people who were oppressed and often faced with a closed future, developed the habit of not considering the future and repressing their past. They established a fixation for the present. Again, these people can in part be compared to the Blacks and Mexican Americans in the United States.

Clearly, as can be seen by the above, there exists a rationale for examining the time orientation of people along racial and ethnic lines. In relation to the studying of the time orientation of imprisoned men, investigating along racial and ethnic lines, could produce some interesting results since such an investigation has never been undertaken.

Time Orientation and Other Variables

There are a number of variables that have been studied in relation to time orientation. Intelligence and socioeconomic status are two variables that have a pertinent relationship to the population that is being studied here.

Intelligence. Basically, there have only been two studies that have investigated the relationship between intelligence and temporal orientation. Brock and Del Giudice (1963) reported that there was no significant relationship between intelligence level, future extension, and stealing behavior. These results were confirmed by Judson and Tuttle (1966) who tested eighty-two (82) children on a time orientation measurement and found that intelligence was not responsible for a significant amount of variance in differences between future time perspective and I.Q.

Socioeconomic status. Le Shan (1952) was the first to study the relationship of time orientation to social class. Using a story telling technique, he found that there was a significant difference in extension between lower class children and middle class children. Le Shan indicated the results were influenced by differences in the perceived relationships of the individual and his goals in time across class lines.

Following this lead, Ellis, Ellis, Mandel, Schaeffer, Sommer and Sommer (1955), attempted to relate frustration tolerance and future extension among lower class children. However, no significant relationship was found.

Greene and Roberts (1961) claimed that Le Shan's research findings were incorrect and stated that his statistical procedures were the cause. Using the correct methods they calculated that Le Shan's work showed a range of significance from the .02 level to non-significance.

In an effort to resolve the controversy raised by the Greene and Robert's correction, Judson and Tuttle (1966) administered a story completion test and the Harris Social Responsibility scale to forty-two (42) lower and forty (40) middle class children. Although there was found to be a significant difference between the two groups on a measure of social responsibility, there were no significant differences found on the story completion measure. The authors mention that there may be some inadequacies in their technique. As has been mentioned, the story completion method has been criticized for its contradictory results and low reliabilities (Wulff, 1969, p. 30).

Brim and Forer (1956), using a technique that directly asked subjects how far into the future they planned, tested 2700 high school students and 349 Yale University undergraduates. Among the high school students, there was a significant relationship at the .01 level between planning and father's education. Differences in the college sample, indicating that future planning increases with rise in socio-economic status, were not significant, Also, significant religious and sex differences were found. It should be mentioned that this study has been criticized for its lack of questionnaire development and sampling technique (Graves, 1962, p. 26).

Cottle, Howard and Pleck (1969) investigating the effect of age, sex and social class on Austrian adolescents' perception of time, found that there were definite differences between middle class and upper class subjects. The middle class adolescents were committed to the future while the upper class adolescents were interested in the past to a large degree.

Other researchers have indicated that there are definite differences in the time orientation of social classes. For instance, Frank (1939) writes:

> Whole social classes may be described by the time perspective that dominates their lives as revealed in the range of their planning, their prudential calculations, their fore-thought, their abstinence and so on (Frank, 1939, p. 27).

As was mentioned above, Lewis (1961) has described the culture of poverty in all countries as having

> ...a strong present time orientation with relatively little ability to defer gratification and plan for the future, a sense of resignation and fatalism based upon the realization of their difficult life situation (Lewis, 1961, pp. xxvi-xxvii).

Although some of the studies presented here have been contradictory and inconsistent, there is some indication that socioeconomic status is important in temporal orientation. It is suggested that the variety of results is due in part to methods of temporal orientation measurement and their precision.

ANALYSIS OF DATA

The testing of subjects was undertaken in twenty-four (24) sessions during which 216 subjects were tested. Fourteen (14) potential subjects refused to take part in the study, eight (8) of these coming from the pre-release or end group. Six (6) answer sheets had to be withdrawn from the sample because of incompletions. Additionally, eight (8) answer sheets were eliminated due to parental occupation using the criteria outlined above. Approximately twenty (20) subjects were not available due to transfer, bench warrants, hospitalization or solitary confinement. At the time of testing, the population at the Ferguson Unit of TDC was approximately 1,500.

All inmates who were in the pre-release program between 2 June, 1973 and 17 July, 1973 were tested. Due to limitations in time and availability of subjects, it was necessary to include in the end groups not only subjects with four (4) to ten (10) year sentence lengths but also Caucasian and Black subjects with three year sentence lengths and Chicano subjects with two and three year sentence lengths. It was felt that the important factor was the fact that these men were at the end of their imprisonment, and the interest in this study was to test inmates in this period of imprisonment on a measure of time orientation. In the Chicano end group two (2) subjects had two year sentence lengths and seven (7) subjects had three (3) year sentences. After eliminating subjects with two year sentence lengths from the end group sample in the Caucasian and Black groups, both groups each contained twenty-three (23) subjects with three (3) to ten (10) year sentence lengths. Twenty (20) subjects from each of the Caucasian and Black groups were randomly chosen for inclusion in the study. Ten (10) Caucasian and four (4) Black subjects had three (3) year sentence lengths. All other subjects had between four (4) and ten (10) year sentence lengths.

The various group age means are shown in Table 2. As was expected, the mean ages increase slightly moving from beginning to end of imprisonment.

TABLE 2

Mean Ages of the Various Groups in Years

Ethnic Group	Period of Imprisonment			Group Means
	Beginning	Middle	End	
Caucasian	19.55	20.05	20.40	20.00
Black	19.50	20.10	20.51	20.04
Chicano	19.65	20.25	20.55	20.15
	19.59	20.13	20.49	$\bar{X}$ = 20.12 N = 180

Table 3 shows the various group I.Q. mean scores to be considerably higher than the Black and Chicano I.Q. mean scores.

TABLE 3

Mean Test I.Q.'s of the Various Groups

Ethnic Group	Period of Imprisonment			Group Means
	Beginning	Middle	End	
Caucasian	100.90	106.55	102.50	103.32
Black	88.25	81.45	86.00	85.23
Chicano	84.75	84.85	89.30	86.30
	91.30	90.95	92.60	$\bar{X}$ = 91.63 N = 180

Table 4 demonstrates the mean maximum sentence lengths of the various groups. The considerably lower mean maximum sentence lengths of the three end groups

TABLE 4

Mean Maximum Sentence Lengths of the Various Groups in Days

Ethnic Group	Period of Imprisonment			Group Means
	Beginning	Middle	End	
Caucasian	2009.5	2849.7	1552.8	2137.3
Black	2210.4	3050.5	1516.2	2259.0
Chicano	2137.2	2758.2	1570.6	2155.3
	2119.0	2886.1	1546.5	$\bar{X}$ = 2161.6 N = 180

points to the inclusion of the three year sentence lengths of the Caucasian and Black end groups, and of the two and three year sentence lengths of the Chicano end group. The considerably larger mean maximum sentence lengths of the three middle groups suggests that the definition of that middle period probably influenced the greater values. It should be pointed out, that the methodological problems encountered in defining these three periods, so as to have similar mean maximum sentence lengths are considerable from the standpoint of not only having equitable definitions but also having sufficient numbers of subjects who give a fair representation of the population. It is felt here that the definition used in this study, although not perfect, is adequate since it represents the psychological middle period of imprisonment. These subjects have been imprisoned for a considerable period of time, six months or more, and are at a minimum of six months from parole eligibility. However, data to be presented below suggest that maximum sentence length variances may not be as important as at first expected.

The type of crime that the various group members were convicted of is listed in Table 5. In some cases, information on type of crime committed was not available as the table indicates.

As was planned, an analysis of variance was performed on the Time Competence scores. Since the independent

TABLE 5

Type of Crimes for which Various Group Members were Convicted

Group	Type of Crime	Period of Imprisonment		
		Beginning	Middle	End
Caucasian	Violent	8	8	4
	Non-violent	12	11	13
	Charge-not-clear	0	1	3
Black	Violent	7	14	3
	Non-violent	13	6	14
	Charge-not-clear	0	0	3
Chicano	Violent	11	10	7
	Non-violent	8	9	10
	Charge-not-clear	1	1	3

N = 180

variable of race was considered a fixed variable and the period of imprisonment was considered a randomly chosen variable, there results what McGuigan (1968, p. 273) describes as a mixed model of the factoral design. In this type of model, the F values and degrees of freedom are calculated as shown in Table 6. Figure 1 displays the configuration of the parts involved in the analysis and the null hypothesis that the analysis tests. Basically, the analysis is a statistical technique where all the data are treated at once and several general null hypotheses of no difference among the means of the various groups are tested (Downie and Heath, 1970).

TABLE 6

Computation of Analysis of Variance for Mixed Model of the Factoral Design

Source	Sum of Squares	df	Mean Square	F
Between A	SS_a	r-1	MS_a	MS_a/MS_w
Between B	SS_b	c-1	MS_b	MS_b/MS_{axb}
Interaction A x B	SS_{axb}	(r-1) (c-1)	MS_{axb}	MS_{axb}/MS_w
Within	SS_w	N-r	MS_w	
Total	SS_t	N-1	MS_t	

For the analysis of variance of the Time Competence scores, the computed values are reported in Table 7. As

TABLE 7

Analysis of Variance of Time Competence Scores

Source	Sum of Squares	df	Mean Square	F
Between A	204.15	2	102.07	14.14*
Between B	58.89	2	29.45	2.20
Interaction A x B	53.44	4	13.36	1.85
Within	1256.26	174	7.22	
Total	1572.74	179		

*P < .01

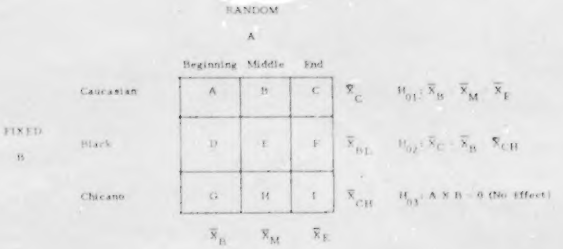

Fig. 1.--Configuration of Parts and Null Hypotheses in the Analysis of Variance of a Mixed Model of the Factoral Design.

can be seen, the "between A" F value proved to be significant at the .01 level; however, the A x B interaction does not appear to be significant. As a result, all six (6) null forms of the hypotheses proposed in Chapter I were not rejected. This indicates that at the beginning, middle and end of imprisonment Caucasian, Black and Chicano inmates were not significantly differentiated on a measure of Time Competence. By way of refreshing the reader, the Time Competence measure basically indicates one's ability to live psychologically in the present, to be able to tie all three time zones into a meaningful continuity and not to be burdened by guilts of the past or rigid idealistic goals of the future.

As was mentioned, the "between A" F value proved to be highly significant, demonstrating that there are significant differences among beginning, middle and end of imprisonment on a Time Competence measure. Figure 2 gives a graphic representation of various group Time Competence mean scores indicating, as the analysis of

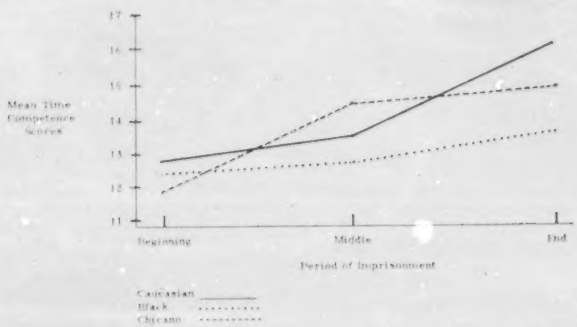

Fig. 2.--Mean Time Competence Scores of the Various Racial Groups by Period of Imprisonment.

variance demonstrates, that subjects exhibit a tendency to increase in the Time Competence mean scores as they proceed from beginning to end of imprisonment.

Because of the significant results of the analysis of variance of the Time Competence scores, it was decided that an analysis of variance should be performed on all three Time Orientation Questionnaire subscale scores to determine the significance, if any, of the variance in scores. Table 8 displays the figures for the analysis of variance of the TOQ Past scores and signifies that all three

null hypotheses tested in the procedure must not be

TABLE 8

Analysis of Variance of Time Orientation Questionnaire Past Scores

Source	Sum of Squares	df	Mean Square	F
Between A	72.20	2	36.10	1.82
Between B	26.27	2	13.14	2.18
Interaction A x B	24.11	4	6.03	0.30
Within	3460.70	174	19.88	
Total	3583.28	179		

rejected. This, of course, means that there is no significant variance between the different groups. Figure 3 gives a graphic representation of the TOQ Past mean scores of the various groups. A visual observation would suggest that no variance would be found. It should be pointed out that the analysis of variance for the TOQ Past, Present and Future scores was computed in an identical manner as displayed in Table 6 and Figure 1 for the Time Competence scores.

The analysis of variance of the TOQ Present subscale is shown in Table 9. As is evident, the "between A" F value

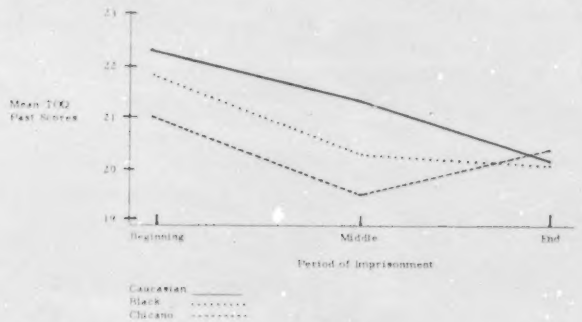

Fig. 3.--Mean Time Orientation Questionnaire Past Scores of the Various Racial Groups by Period of Imprisonment.

TABLE 9

Analysis of Variance of Time Orientation Questionnaire Present Scores

Source	Sum of Squares	df	Mean Square	F
Between A	130.62	2	65.31	3.43*
Between B	81.16	2	40.58	0.84
Interaction A x B	195.71	4	48.93	2.64*
Within	3217.50	174	18.50	
Total	3624.99	179		

*P < .05

is significant as is the A x B interaction. From this, it can be understood that involvement in the present differs with subjects in the various periods of imprisonment, and also that there is interaction in involvement and concern in the present between period of imprisonment and race. Figure 4 represents the TOQ Present mean scores of the different groups. It is suggested here that the high middle TOQ Present scores of Chicanos and Blacks, although not significantly different from Caucasians, could possibly be a measure of institutionalization and greater acceptance of the present situation.

Table 10 presents the analysis of variance of the TOQ Future subscale scores. The "between B" F value proves

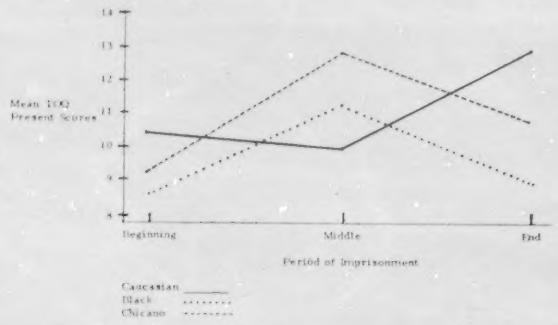

Fig. 4.--Mean Time Orientation Questionnaire Present Scores of the Various Racial Groups by Period of Imprisonment.

TABLE 10

Analysis of Variance of Time Orientation Questionnaire Future Scores

Source	Sum of Squares	df	Mean Square	F
Between A	193.37	2	96.69	2.67
Between B	474.01	2	237.01	6.99*
Interaction A x B	135.43	4	33.86	0.94
Within	6469.05	174	36.13	
Total	7271.86	179		

*P < .05

to be significant, demonstrating that in terms of involvement and concern with the future, the three racial groups varyimeaningfully. There was no A x B interaction or "between A" significance. A graphic representation of the TOQ Future mean scores is shown in Figure 5. Visual observation of these mean scores indicates that there is indeed racial differences in concern and involvement with the future. For instance, it is interesting to note the relatively high Caucasian scores in contrast to the low Chicano scores.

In addition to these statistical procedures, correlation coefficients for the entire sample on all variables were computed as placned. Table 11 shows the tabulated figures and their significance. It is interesting to note in conjunction with the discussion above concerning maximum sentence lengths, that the correlations of sentence lengths are negatively significant at the .01 level with type of crime only and there exist no significant relationships between sentence length and the other variables. It is also observed that I.Q. scores and scores on the Time Compe-

tence scale and the various TOQ subscales show a rather high positive relationship.

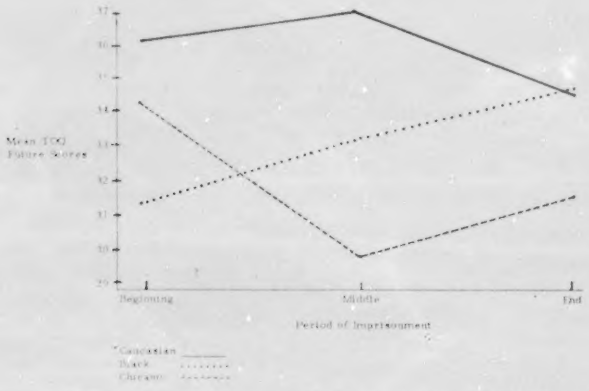

Fig. 5.—Mean Time Orientation Questionnaire Future Scores of the Various Racial Groups by Period of Imprisonment.

TABLE 11

Correlation Coefficients for Entire Sample on All Variables

	Type Crime	Age	I.Q.	Sentence	T_p	T_p-PR	T_p-FU	T_f-FU	TOQ-PS	TOQ-PR	TOQ-FU
Type Crime	—										
Age	-.2835	—									
I.Q.	-.1012	.2764	—								
Sentence	-.1413	.0851	.1118	—							
T_p	-.1148	.1042	.1130	-.0833	—						
T_p-PR	-.1028	.0484	.1468	-.0533	.7181*	—					
T_p-FU	-.0064	.1393	.2620	-.0016	.4104*	.2141	—				
T_f-FU	-.1171	.1619	.1477	-.0050	.3441	-.1190	.0226	—			
TOQ-PS	-.1356	-.1311	.2293	.0743	.0299	.0316	-.1439	-.2190	—		
TOQ-PR	-.1522	-.0507	.0214	.0018	.0760	.1466	-.1316	-.2235	-.0944	—	
TOQ-FU	-.1041	-.1067	.2439	-.0818	-.0635	-.1228	-.1680	-.1062	.5224*	-.2419	—

*$p < .05$
**$p < .01$

Under a close scrutiny, it is of interest to note that the TOQ Future subscale relates in a negative direction at the .05 significance level to the Time Competence scores, and also in a negative direction at the .01 significance level to the Time Competence Future. This would suggest, as the definitions would infer, that the greater a subject's involvement and concern for the future, the less capable he is of living for the present and tying all three time zones in a semblance of unity and order. However, the fact that there exists a positive significant relationship at the .01 level between the TOQ Future and the Time Competence Present would seem to confound that observation.

A number of other relationships can be noted. For example, it is observed that the TOQ Present subscale has a positive .01 significant relationship to the Time Competence score and the Time Competence Present as well as Future scores. Again looking to the definitions of the two measurements, this would be expected. In addition, it is noted that the Time Competence Future score has a negative .01 significant relationship with the TOQ Past and Future score, while at the same time there is a positive .01 significant relationship to the TOQ Present scores. Once again looking to the definitions of the measurements, this is not surprising. Generally speaking then, the correlation coefficients in this study support the contention that the Time Orientation Questionnaire subucales have the ability to measure involvement and concern in the various time periods, given the validity and previous research of the Time Competence scale.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Summary of Findings

The purpose of this research was to attempt to identify differences, or the lack of them, in time orientations of Caucasian, Black and Chicano young male first offenders at various periods of imprisonment; namely, beginning, middle and end.

In an effort to grasp the meaning of this study, specific questions were formulated which dealt with the results. In addressing the first question concerning a review of previous research dealing with racial time orientation differences and prison time orientation studies, the literature indicates that although differences have been discovered between the various racial groups, there have been no studies undertaken concerning the various racial experiences of time during imprisonment. Basically, in terms of differing racial involvement in time, the literature reveals that (1) Caucasians have the greatest concern for the future and are concerned with time to a greater degree than other groups; (2) Blacks are mostly present oriented; and (3) Chicanos, likewise, are oriented towards the present and also exhibit involvement in the past. Insofar as the understanding of the influence that imprisonment has on time orientation, the literature demonstrates that (1) the future time perspective of inmates at the beginning of imprisonment is much less definite than at the end of imprisonment; (2) the end of imprisonment represents the effective boundary for the effective future; and (3) individual and institutional variables influence perception of time and the need or desire to be released from prison.

The second question concerns the analysis of variance of the Time Competence scores. Although the results would not allow the rejection of the six (6) null forms of the proposed hypotheses of this study, there were exhibited highly significant differences in Time Competence at the beginning, middle and end of imprisonment. Visual examination of the Time Competence mean score graphi(Figure 2), indicates that inmates respond in a more Time Competent manner as they proceed through their imprisonment.

In addition, the analysis of variance technique was performed on all three Time Orientation Questionnaire subscale scores. Results showed no significant differences in the TOQ Past analysis, although Figure 6 suggests a nonsignificant decline in interest. The TOQ Present analysis showed significant differences at the beginning, middle and end of imprisonment concerning involvement in the present, with generally decreasing interest as one progresses. Blacks and Chicanos scored higher than Caucasians, although not significantly so, in the middle period, suggesting a greater satisfaction with the present situation. Lastly, the findings in the TOQ Future analysis demonstrate that there are significant differences between racial groups with Caucasian subjects indicating greatest concern for the future and Chicano subjects the least.

Concisely then, the data indicate that inmates' ability to respond in a Time Competent manner increases as they progress through imprisonment; involvement in the past decreases, but not to a significant degree; involvement in the present changes during imprisonment, with Black and Chicano inmates, in relation to Caucasian inmates, accepting the present in the middle of imprisonment to a greater degree; and lastly, involvement in the future varies significantly by racial group but not by period of imprisonment.

The third question posed dealt with the degree of association that the correlation coefficients of all eleven (11) variables across the entire sample would demonstrate. Sentence lengths showed no relationship to responses on both the Time Competence score and TOQ subscales. I.Q., however, did relate highly in a positive direction to responses. Other results generally indicated that the Time Competence scale and the TOQ subscales made measurements of the sample that were in agreement and consistent with the definitions of what each was to measure.

Relation to Previous Research

The meaning of the findings in this study in relation to the prior research on time orientation of imprisoned men, points to the above mentioned problem (Wallace and Rabin, 1960) of comparing studies that have used varying methodologies and time definitions. Keeping this in mind and realizing that all areas of research experience similar problems of comparability, a number of observations can be made.

To begin, the findings here directly contradict Megargee, Price, Frohwirth and Levine in relation to their assertion that inmates' orientation did not change from beginning, middle and end of imprisonment. However, the TOQ subscale scores indicated in similar fashion to the Time Reference Inventory scores used by Megargee **et al.**, that subjects overall were involved primarily with the future, while being secondarily concerned with the past, and only slightly involved with the present. The author, however, does not agree with the conclusion of Megargee **et al.**, that treatment oriented institutions are responsible for the obtained results. Rather, there is, in part, a component of social desirability involved in asking these types of questions of imprisoned men. In addition, a logical estimation of the inmate's

situation would indicate that the future offers the best possibilities, memory of the past second best, and the present experience of imprisonment is definitely the latter of the three choices.

This is, of course, inconsistent with much of the literature notably Brandt and Johnson (1955), that states that criminal deviants are primarily present oriented in contrast to normals. It should be noted that Brandt and Johnson (1955), and many others investigating this specific area, have used a story telling technique where time references are counted during the course of the telling of a story. Inferences are then drawn from the number of time references made, as to how a person is time oriented. As can be seen, this is much different from asking specific questions about time. The point to be made here is that both approaches start from different levels, and, thus, it is not surprising to find different results. As has been pointed out in Chapter II, there are some serious methodological criticisms that can be made of these studies. It is suggested here that experiments with better controls of extraneous variables and more precise measurements will be necessary to settle the issue.

The contention of Farber (1944) and Landau (1969) that the date of release represents the effective future boundary, cannot be affirmed or denied here, by way of the fact that these two researchers depended heavily on interviews for collection of data, and this research used two time orientation measures that did not make any reference to imprisonment. However, it can be stated by way of significant differences in the Time Competence scores by period of imprisonment, that inmates were able to respond in a more Time Competent manner as they progress through their imprisonment. This would seemingly be in agreement with Landau's finding that inmates had a much less realistic future time perspective at the beginning of imprisonment than at the end.

The finding that involvement in the future varies significantly with race, appears to be in agreement with Wolk (1970) and Stone (1971) who respectively found that Black and Chicano subjects had lower future time perspectives than Caucasian subjects. In addition, this would be in agreement with other researchers; namely, Graves (1962), Kluckhohn (1954) and Saunders (1958). Also, it is interesting to note that the TOQ Present scores at the middle of imprisonment (Figure 4) show higher (though not significant) scores for Blacks and Chicanos. This would seem to be in agreement with findings of Horton (1967) and Wolk (1970) that these racial groups live in and accept the present more than Caucasians.

Finally, one finding that completely contradicts prior research, is the one that indicates high relationships between I.Q., Time Competence scores and TOQ subscale scores. Both Brock and Del Guidice (1963) and Judson and Tuttle (1966) found no relationship between time orientation measures and intelligence. Since the questionnaire in this research was administered by means of a tape recorder, the differences could not be attributed to reading ability. Further study will have to be undertaken to resolve the issue.

Recommendations for Further Research

Turning to possibilities for further research in this area, there are a number of directions and approaches that can be taken. First, it should be stated that although it creates a number of methodological problems and requires a good deal of effort and time, it is thought here to be definitely best in time orientation studies of imprisoned men to control for age, I.Q., socioeconomic status, sentence lengths and period or stage of imprisonment. From the experience of this study, it is suggested that the definition of the middle groups be modified. Additionally, an interview schedule should probably be introduced to probe more deeply the inmates' feelings about time. It was found in discussions following testing sessions that inmates showed a fairly high degree of interest in questions about time and imprisonment. Of course, various time orientation questionnaries could be used to correlate interview data as well as probe areas not dealt with in an interview schedule. Given the time necessary to properly conduct an interview, it probably would be necessary to have a much smaller sample.

In addressing the problem of suggesting specific research, there are a number of recommendations and suggestions that can be made in this area. One study that could be undertaken, and has been suggested by Landau (1969), is to study the differences, or lack of them, in time orientation between imprisoned people and parolees. Findings could suggest the influence that imprisonment, release and adjustment have on prisoners and former prisoners.

Another piece of research, similar, but wider in scope than this study, would be to compare first offenders and recidivists as to their time orientation using a methodology similar to the one used here. Results could indicate the orientation of people who have been repeatedly imprisoned in relation to those who are experiencing imprisonment for the first time.

There are a number of approaches that can be taken using time orientation to investigate problems germane to imprisonment and the criminal justice system. The following quote from Galtung (1961) suggests an interesting study involving deterrence and time orientation.

> A month may be an ocean of time and a lost experience for one prisoner but not for others. Probably equalization depends, for any given interval, on how many events, pleasant or unpleasant, an individual is accustomed to packing together in a limited amount of time. If we assume that these two aspects of time perspective are correlated so thatithe person who is able to see far ahead, by and large, is also the one who can attach

> value to the smallest interval of time, then it seems that one and the same sentence punishes the person with a high score on both dimensions much more than it does the man with low scores on both dimensions. Perhaps "reformation" should appear with greater frequency among persons with high scores than among those whose scores are low (Galtung, 1961, p. 114).

One of the foremost problems for prison administrators is the behavior of inmates described as "trouble makers" or "incorrigibles." Many times the behavior of these types of inmates is dismissed as being attributed to some individual behavioral pathology and there exists no reasonable or rational explanation for such actions. However, if a prison sentence is viewed from the standpoint of the inmate, such behavior could be considered in a different light. A prison sentence structures time for an inmate in an institution where life is much less stimulating in comparison to life on the outside. In prison, the options for activities to be involved in become depressingly smaller. As Galtung infers, viewing behavior categorized as "trouble making" or "incorribible," in the context of life in prison, such behaviors become more understandable.

> Little is known about the importance of predictability to the psychological welfare of human beings. If time is viewed as a road with illuminated signposts in the distance, then prison time is always a highway with small signposts set at regular intervals along it, each inscribed with some of the regularities and technicalities of prison routine. ... extreme regularity will prevail unless effectively countered. Prisons provide us with highly conclusive evidence that regularity that is perceived as enforced will be countered by irregularity (Galtung, 1961, p. 115).

An experiment could be designed to test this observation by testing inmates described as "trouble makers," and inmates categorized as "well adjusted" on measures of time orientation, impulsivity and need for stimulation. Although there are undoubtedly other factors involved in this type of behavior, it could possibly be discovered that these inmates have a high need for stimulation, change, challenge and immediate gratification. Assuming this is the case, administrators could design programs for this relatively small number of inmates, that would meet their needs more adequately.

Taking a broad, long range view, providing that a clearer relation can be drawn between time orientation and deviance, particularly criminal behavior, time orientation measurements could become part of the diagnostic and predictive tools that could help officials determine a criminal deviant's success potential for various programs. Of course, there are a number of ethical considerations that would have to be dealt with in conjunction with such use. However, monumental methodological problems exist in bringing a time orientation measurement to such a precision. As has been mentioned, time orientation measures at this point in time, are so varied that comparability of research is tenuous.

Although the author is conscious of the pitfall in looking to one variable for the answer in understanding all behavior, it is suggested here that further in-depth investigations into time orientation should be conducted particularly with imprisoned people and other criminal deviants. Such studies could potentially give a better understanding of behavior and adjustment in prison as well as the commission of criminal acts.

BIBLIOGRAPHY

American Friends Service Committee. **Struggle for Justice.** New York: Hill and Wang, 1971.

Brandt, R. J., and Johnson, D. M. "Time Orientation in Delinquents." **Journal of Abnormal and Social Psychology,** 1955, 51, 343-345.

Brim, Orville G. and Forer, Raymond. "A Note on the Relation of Values and Social Structure on Life Planning." **Sociometry,** 1956, 19, 54-60.

Brock, Timothy C. and Del Giudice, Carolyn. "Stealing and Temporal Orientation." **Journal of Abnormal and Social Psychology,** 1963, 66, 91-94.

Calkins, Kathy. "Time: Perspectives, Marking and Styles of Usage." **Social Problems,** 1970, 17, 487-501.

Clemmer Donald. **The Prison Community.** New York: Rinehart, 1958.

Cohen, Stanley, and Taylor, Laurie. "The Experiment of Time in Long-Term Imprisonment." **New Society,** 1970, 16, 1156-1159.

Cottle, Thomas J., Howard, Peter, and Pleck, Joseph. "Adolescent Perceptions of Time: The Effect of Age, Sex and Social Class." **Journal of Personality,** 1969, 37, 636-650.

Cressy, Donald R., ed. **The Prison: Studies in Institutional Organization and Change.** New York: Holt, Rinehart and Winston, 1961.

Davids, Anthony, Kiddler, Catherine, and Reich, Melvyn. "Time Orientation in Male and Female Juvenile Delinquents." **Journal of Abnormal and Social Psychology,** 1962, 64, 239-240.

Davids, Anthony, and Parenti, Anita Negrin. "Time Orientation and Interpersonal Relations of Emotionally Disturbed and Normal Children." **Journal of Abnormal and Social Psychology,** 1958, 57, 299-305.

Dilling, C. A., and Rabin, A. I. "Temporal Experience in Depressive States and Schizophrenia." **Journal of Consulting Psychology,** 1967, 31, 604-608.

Downie, N. M., and Heath, R. W. **Basic Statistical Methods.** New York: Harper and Row, 1970.

Dreger, R. N., and Miller, K. S. "Comparative Psychological Studies of Negroes and Whites in the United States." **Psychological Bulletin,** 1960, 57, 361-402.

Ellis, L. M., Ellis, R., Mandel, E. D., Jr., Schaeffer, M. S., Sommer, G., and Sommer, G. "Time Orientation and Social Class: An Experimental Supplement." **Journal of Abnormal and Social Psychology,** 1955, 51, 146-147.

Farber, M. L. "Suffering and Time Perspective of the Prisoner." **Authority and Frustration: Studies in Topological and Vector Psychology III, University of Iowa Studies in Child Welfare,** 1944, 20, 153-227.

Fink, Howard H. "The Relationship of Time Perspective to Age, Institutionalization and Activity." **Journal of Gerontology,** 1957, 12, 414-417.

Fisher, Gary. "Performance of Psychopathic Felons on a Measure of Self-Actualization." **Educational and Psychological Measurements,** 1968, 28, 561-563.

_____, and Silverstein, A. B. "Self-Actualization Values of Felons." **Journal of Humanistic Psychology,** 1969, IX, No. 1, 66-71. (a)

_____, and Silverstein, A. B. "Simulation of Poor Adjustment on a Measure of Self-Actualization. **Journal of Clinical Psychology,** 1969, 25, 198-199. (b)

Fraisse, P. **The Psychology of Time.** Translated by J. Leith. New York: Harper and Row, 1963.

Frank, L. K. "Time Perspectives" **Journal of Social Philosophy,** 1939, 4, 293-312.

Friel, Charles M., and de Aboitiz, Fredric S. "Temporal Orientation in the Criminal Psychopath." **Proceedings, Seventy-Sixth Annual Convention, American Psychological Association,** 1968, 485-486.

Galtung, Johan. "Prison: The Organization of Dilemma." **The Prison: Studies in Institutional Organization and Change.** Edited by Donald R. Cressy. New York: Holt, Rinehart and Winston, 1961.

Goffman, Erving. **Asylums.** Garden City, New York: Doubleday and Company, Inc., 1961.

Graves, Theodore D. "Time Perspective and the Deferred Gratification Pattern in a Tri-Ethnic Community." Unpublished Ph.D. Dissertation, University of Pennsylvania, 1962.

Griswald, H. Jack, Misenheimer, Mike, Powers, Art, and Tromanhauser, Ed. **An Eye For An Eye.** New York: Pocket Books, 1971.

Hood, Roger, and Sparks, Richard. **Key Issues in Criminology.** New York: McGraw-Hill Book Company, 1970.

Horton, John. "Time and Cool People." **Transaction,** 1967, 4, 5-12.

Judson, Abe J., and Tuttle, Cynthia E. "Time Perspective and Social Class." **Perceptual and Motor Skills,** 1966, 23, 1074.

Kluckhohn, F. R. "Dominant and Variant Value Orientations." **Personality in Nature, Society, and Culture.** Edited by C. Kluckhohn, H. A. Murray, and D. M. Schneider. New York: Knopf, 1954.

Knapp, R. R., cited in Shostrom, E. L. **Manual for Personal Orientation Inventory.** San Diego, California: Education and Industrial Testing Service, 1972.

Kummel, F. "Time as Succession and the Problem of Duration." **The Voice of Time.** Edited by J. T. Frazer. New York: Braziller, 1966.

Laffey, John Joseph. "Impulsivity and Temporal Experience in Prisoners." Unpublished Ph. D. Dissertation, University of Michigan, 1963.

Landau, Simha F. "The Effect of Length of Imprisonment and Subjective Distance from Release on Future Time Perspective and Time Estimation of Prisoners." **Studies in Criminology.** Edited by Drapkin. Jerusalem, Israel: Maynes Press, 1969.

LeShan, L. L. "Time Orientation and Social Class." **Journal of Abnormal and Social Psychology,** 1952, 47, 589-592.

Lewis, Oscar. **The Children of Sanchez.** New York: Random House, 1961.

Maslow, Abraham. **Toward a Psychology of Being.** New York: Van Nostrand, 1962.

McGuigan, F. J. **Experimental Psychology: A Methodological Approach.** Englewood Cliffs, New Jersey: Prentice-Hall, 1968.

Megargee, E.; Price, A.; Frohwirth, R; and Levine, R. "Time Oriectation of Youthful Prison Inmates." **Journal of Counseling Psychology,** 1970, 17, 8-14.

Ricks, David; Umbarger, Carter; and Mack, Ronald. "A Measure of Increased Temporal Perspective in Successfully Treated Adolescent Delinquent Boys." **Journal of Abnormal and Social Psychology,** 1964, 69, 685-689.

Roberts, Alan H., and Greene, Joel E. "Cross-Cultural Study of Relationships Among Four Dimensions of Time Perspective." **Perceptual and Motor Skill,** 1971, 33, 163-173.

Roos, Philip, and Albers, Robert. "Performance of Alcoholics and Normals on a Measure of Temporal Orientation." **Journal of Clinical Psychology,** 1965, 21, 34-36.

Saunders, Lyle. "English-Speaking and Spanish-Speaking People of the Southwest." **Social Perspectives on Behavior.** Edited by H. Stein and R. Howard. Glencoe, Illinois: Free Press Publishers, 1958.

Shostrom, Everett L. "An Inventory for the Measurement of Self-Actualization." **Educational and Psychological Measurements,** 1964, XXIV, No. 2, 207-217.

Siegman, Aron Wolfe. "The Relationship Between Time Perspective, Time Estimation, and Impulse Control in a Group of Young Offenders and in a Control Group." **Journal of Consulting Psychology,** 1961, 25, 470-475.

Stein, K. B., Sarbin, T. R., and Kulik, J. A. "Future Time Perspective: Its Relation to the Socialization Process and the Delinquent Role." **Journal of Consulting and Clinical Psychology,** 1968, 32, 257-264.

Stone, Paula C. "Experience of Control, Time Orientation and Aspiration Level of High School Students Varying in Socioeconomic Status and Racial Group." Unpublished Ph.D. Dissertation, University of Arizona, 1971.

Sykes, Gresham M. **The Society of Captives.** Princeton: Princeton University Press, 1958.

Wallace, M. "Future Time Perspective in Schizophrenia." **Journal of Abnormal and Social Psychology,** 1956, 52, 240-245.

_____, and Rabin, A. I. "Temporal Experience." **Psychological Bulletin,** 1960, 57, 213-236.

Wallach, M. A., and Green, L. R. "On Age and the Subjective Speed of Time." **Journal of Gerontology,** 1961, 16, 71-74.

Wolk, Rochelle B. "The Dimensions of Future Time Perspective in Black and White Children." Unpublished Ph.D. Dissertation, Fordham University, 1970.

Wulff, David M. "Varieties of Temporal Orientation and Their Measurement." Unpublished Ph.D. Dissertation, University of Michigan, 1969.

APPENDIX A

REVISED TIME COMPETENCE SUBSCALE

OF THE POI

PAST

1. a. I often feel a need to defend my past actions.
   b. I do not feel a need to defend my past actions.
2. a. I have feelings of displeasure about things that are past.
   b. I do not have feelings of displeasure about things that are past.
3. a. What I have been in the past pretty well tells what kind of person I will be.
   b. What I have been in the past does not really tell what kind of person I will be.
4. a. I suffer from memories.
   b. I do not suffer from memories.
5. a. I dislike my past.
   b. I do not dislike my past.
6. a. My past is a stepping stone for the future.
   b. My past may hurt my future.
7. a. People should always feel sorry for their wrongdoings.
   b. People need not always feel sorry for their wrongdoings.

PRESENT

8. a. I like to cut myself off and withdraw from others for short periods of time.
   b. I do not like to cut myself off and withdraw from others for short periods of time.
9. a. Living for the future is as important as living for the present.
   b. Only living for the present is important.
10. a. I deeply believe in the saying that goes, "Don't waste your time."
    b. I do not feel bound by the saying that goes, "Don't waste your time."
11. a. I feel the need to be doing something important all of the time.
    b. I do not feel the need to be doing something important all of the time.
12. a. "Killing time" is a problem for me.
    b. "Killing time" is not a problem for me.
13. a. For me, past present and future is in a meaningful unity and order.
    b. For me, the present is an island, unrelated to the past and future.
14. a. It is important to me how I live in the here and now.
    b. It is of little importance to me how I live in the here and now.
15. a. I like to cut myself off and withdraw from others for long periods of time.
    b. I do not like to cut myself off and withdraw from others for long periods of time.

FUTURE

16. a. I try always to foresee what will happen in the future.
    b. I do not feel a need always to foresee what will happen in the future.
17. a. I worry about the future.
    b. I do not worry about the future.
18. a. I like to save good things for future use.
    b. I like to use good things now.
19. a. Wishing and imagining can be bad.
    b. Wishing and imagining are always good.
20. a. I spend more time getting ready to live.
    b. I spend more time actually living.
21. a. Living for the future gives my life its basic meaning.
    b Only when living for the future ties into living for the present does my life have meaning.
22. a. For me, the future usually seems hopeful.
    b. For me, the future often seems hopeless.
23. a. My hope for the future depends on having friends.
    b. My hope for the future does not depend on having friends.

Example: 1. a. I am interested in self-improvement at all times.
   b. I am not interested in self-improvement at all times.

Example: 2. a. Reasons are needed to justify my feelings.
   b. Reasons are not needed to justify my feelings.

APPENDIX B

REVISED SELECTED SUBSCALES

OF THE TOQ

PAST

1. I believe it is important to learn man's past cultural traditions and customs, and pass their richness on to others.
2. The subject of history holds little interest or attraction for me.
3. Places like museums that show things from the past bore me.
4. Thoughts about the past are among life's treasures, and are very dear to me.
5. I am not one for saving things from my earlier years.
6. I have few memories from my own past.
7. My family and I are not the kind of people who like to make a big deal out of holidays.
8. I have rarely, if ever, felt homesickness.
9. I know very little about my ancestors, forefathers and family tree.

PRESENT

10. I like life just the way it is now.
11. I am often depressed or bored.
12. I would be very upset and bothered if I knew that the rest of my life would be like my present days.
13. Right now, everything seems at a standstill for me.
14. I wish I were finished with what I am doing at this point in my life, and could move on to other things.
15. I am waiting for the next part of my life to begin.
16. Most of my actions and thoughts these days are to get ready for the future.
17. My years of greatest happiness still lie ahead.
18. I am already enjoying and liking most of the things that will give my life meaning and purpose in the future.

FUTURE

19. I sometimes think about what the world and my daily life will be like in the years ahead.
20. I almost never think about what I will be like when I am older.
21. I sometimes think of a far distant day when life will be peaceful and happy.
22. I would like to write down my own life story someday, if only for my own pleasure and satisfaction.
23. I sometimes think about what great excitement and happiness the future will bring for me.
24. I would like to live in the far distant future instead of now.
25. I enjoy thinking about what life will be like in a hundred years and beyond.
26. I rarely if ever am interested in science fiction.
27. I have no feeling of order, direction or purpose in my life.
28. I have very little idea of what I would like to do with the rest of my life.
29. My life is like a piece of wood drifting down an unknown river.
30. The future is so unknown and uncertain that there is little that I can do to get ready for it now.
31. I see little value or worth in thinking about the future.

Example: 1. I feel lost unless I know what time it is.
Example: 2. For me, life will start again, after I get out of prison.

APPENDIX C

ORIGINAL TIME COMPETENCE SUBSCALE

OF THE POI

PAST

1. a. I often feel it necessary to defend my past actions.
   b. I do not feel it necessary to defend my past actions.
2. a. I have feelings of resentment about things that are past.
   b. I do not have feelings of resentment about things that are past.
3. a. What I have been in the past dictates the kind of person I will be.
   b. What I have been in the past does not necessarily dictate the kind of person I will be.
4. a. I suffer from memories.
   b. I do not suffer from memories.
5. a. I regret my past.
   b. I do not regret my past.
6. a. My past is a stepping stone for the future.
   b. My past is a handicap to my future.
7. a. People should always repent their wrongdoings.
   b. People need not always repent their wrongdoings.

PRESENT

8. a. I like to withdraw temporarily from others.
   b. I do not like to withdraw temporarily from others.
9. a. Living for the future is as important as living for the moment.
   b. Only living for the moment is important.
10. a. I follow diligently the motto, "Don't waste your time."
    b. I do not feel bound by the motto, "Don't waste your time."
11. a. I feel the need to be doing something significant all of the time.
    b. I do not feel the need to be doing something significant all of the time.
12. a. "Killing time" is a problem for me.
    b. "Killing time" is not a problem for me.
13. a. For me, past, present and future is in meaningful continuity.
    b. For me, the present is an island, unrelated to the past and future.
14. a. It is important to me how I live in the here and now.
    b. It is of little importance to me how I live in the here and now.
15. a. I like to withdraw from others for extended periods of time.
    b. I do not like to withdraw from others for extended periods of time.

FUTURE

16. a. I strive always to predict what will happen in the future.
    b. I do not feel it necessary always to predict what will happen in the future.
17. a. I worry about the future.
    b. I do not worry about the future.
18. a. I prefer to save good things for future use.
    b. I prefer to use good things now.
19. a. Wishing and imagining can be bad.
    b. Wishing and imagining are always good.
20. a. I spend more time preparing to live.
    b. I spend more time actually living.
21. a. Living for the future gives my life its primary meaning.
    b. Only when living for the future ties into living for the present does my life have meaning.
22. a. For me, the future usually seems hopeful.
    b. For me, the future often seems hopeless.
23. a. My hope for the future depends on having friends.
    b. My hope for the future does not depend on having friends.

APPENDIX D

SELECTED SUBSCALES OF

ORIGINAL TOQ

DISTANT PAST

1. I feel a responsibility to understand man's cultural heritage and pass on its richness to others.
2. Books of history or historical novels hold little interest for me.
3. Museums are places where the past is embalmed; they bore me.

PERSONAL PAST

4. Memories from the past are among life's treasures for me.
5. I am not one for saving momentos from my earlier years.
6. I have few memories from my own past.
7. My family and I are not the kind of people who enjoy elaborate and ritualistic celebration of holidays.
8. I have rarely, if ever, experienced homesickness.
9. I know very little about my ancestors and family tree.

PRESENT

10. I am enjoying life just the way it is now.
11. I am often depressed or bored.
12. I would be very distressed if I knew that the remaining years of my life were destined to be very much like my present days.
13. Right now, everything seems at a standstill for me.
14. I wish I were finished with what I am doing at this point in my life, and could move on to other things.
15. I am waiting for the next period of my life to begin.
16. Most of my activity these days is directed toward preparing for the future.
17. My years of greatest happiness still lie ahead.
18. I am already enjoying today most of those things which will give my life meaning in the future.

PERSONAL FUTURE

19. I sometimes think about what the world and my daily life will be like in the years ahead.
20. I almost never think about what I shall be like when I am older.
21. I have glimpses of a far-distant day when life will be peaceful and fulfilling.
22. I would like to write my own biography someday, if only for my own pleasure.
23. I sometimes anticipate with great excitement and pleasure what the future will bring for me.

DISTANT FUTURE

24. I would like to live in the far distant future instead of now.
25. I enjoy speculating about what life will be like in the 21st Century and beyond.
26. I rarely, if ever, read science fiction.

DIRECTION

27. I feel no sense of order, direction, or purpose in my life.
28. I have very little idea of what I would like to accomplish in the rest of my lifetime.
29. My life is like a piece of wood drifting down an unknown river.
30. The future is so unknown, there is little that I can do to prepare for it now.
31. I see little value in speculating about the future.

APPENDIX E

ANSWER SHEET AND CONSENT FORM

ANSWER SHEET

Would you please indicate the occupation or job at which your parents are now employed. If a parent is dead or not present simply draw a line through the space.

Mother's Occupation _____ Father's Occupation _____

This questionnaire is given by means of a tape recorder. Each statement is repeated twice, as will be seen in the examples. Please remember in answering the questions presented here, that there are no right or wrong answers. The interest here is to see how you honestly feel about each question or statement.

Also, please try to give **some** answer to each item.

PART ONE

In this part, two tape recorded statements will be made. You answer by choosing the statement in each pair that you agree with most. If you miss or do not hear a statement, mark the number of the question and it will be repeated at the end of this section.

Example: 1. a b

1. a b
2. a b
3. a b
4. a b
5. a b
6. a b
7. a b
8. a b
9. a b
10. a b
11. a b
12. a b

Example: 2. a b

13. a b
14. a b
15. a b
16. a b
17. a b
18. a b
19. a b
20. a b
21. a b
22. a b
23. a b

PART TWO

Please answer the following by choosing the response that best expresses your thoughts about the statement. Again, if you miss or do not hear a statement, mark the number of the statement and it will be repeated at the end of this section.

Please check **one** of the five responses to each statement.

Strongly Agree	**Agree**	**No Opinion**	**Disagree**	**Strongly Disagree**
a	b	c	d	e

Example: 1. a b c d e

Example: 2. a b c d e

1. a b c d e
2. a b c d e
3. a b c d e
4. a b c d e
5. a b c d e
6. a b c d e
7. a b c d e
8. a b c d e
9. a b c d e
10. a b c d e
11. a b c d e
12. a b c d e
13. a b c d e
14. a b c d e
15. a b c d e
16. a b c d e
17. a b c d e
18. a b c d e
19. a b c d e
20. a b c d e
21. a b c d e
22. a b c d e
23. a b c d e
24. a b c d e
25. a b c d e
26. a b c d e
27. a b c d e
28. a b c d e
29. a b c d e
30. a b c d e
31. a b c d e

CONSENT FORM

I hereby agree to participate in a study on how imprisoned men view time being conducted by Paul Rogan, a graduate student from Sam Houston State University. I understand that this study is being undertaken in cooperation with the Institute of Contemporary Corrections at Sam Houston State University and the Texas Department of Corrections. In addition, I understand that my respocses to questions in this study are going to be used for research purposes only and will in no way affect my record or standing here at the prison. The answer sheet will be labeled with a code number for categorizing purposes and will not bear my name.

I hereby agree to participate in this study and understand that my answer sheet will not bear my name. The data will be used for research purposes only and will be kept strictly confidential.

Signed: _____

Date: _____

APPENDIX F

ADMINISTERED INSTRUMENT

PART I

Example: 1. a. I am interested in self-improvement at all times.
b. I am not interested in self-improvement at all times.

Example: 2. a. Reasons are needed to justify my feelings.
b. Reasons are not needed to justify my feelings.

1. a. I often feel a need to defend my past actions.
b. I do not feel a need to defend my past actions.
2. a. I try always to foresee what will happen in the future.
b. I do not feel a need always to foresee what will happen in the future.
3. a. I like to cut myself off and withdraw from others for short periods of time.
b. I do not like to cut myself off and withdraw from others for short periods of time.
4. a. I have feelings of displeasure about things that are past.
b. I do not have feelings of displeasure about things that are past.
5. a. I worry about the future.
b. I do not worry about the future.
6. a. I like to save good things for future use.
b. I like to use good things now.
7. a. Living for the future is as important as living for the present.
b. Only living for the present is important.
8. a. Wishing and imagining can be bad.
b. Wishing and imagining are always good.
9. a. I spend more time getting ready to live.
b. I spend more time actually living.
10. a. Living for the future gives my life its basic meaning.
b. Only when living for the future ties into living for the present does my life have meaning.
11. a. I deeply believe in the saying that goes, "Don't waste your time."
b. I do not feel bound by the saying that goes, "Don't waste your time."
12. a. What I have been in the past pretty well tells what kind of a person I will be.
b. What I have been in the past does not really tell what kind of a person I will be.
13. a. I feel the need to be doing something important all of the time.
b. I do not feel the need to be doing something important all of the time.
14. a. I suffer from memories.
b. I do not suffer from memories.
15. a. I dislike my past.
b. I do not dislike my past.
16. a. For me, the future usually seems hopeful.
b. For me, the future often seems hopeless.
17. a. My past is a stepping stone for the future.
b. My past may hurt my future.
18. a. "Killing time" is a problem for me.
b. "Killing time" is not a problem for me.
19. a. For me, past, present and future is in a meaningful unity and order.
b. For me, the present is an island, unrelated to the past and future.
20. a. My hope for the future depends on having friends.
b. My hope for the future does not depend on having friends.
21. a. It is important to me how I live in the here and now.
b. It is of little importance to me how I live in the here and now.
22. a. I like to cut myself off and withdraw from others for long periods of time.
b. I do not like to cut myself off and withdraw from others for long periods of time.
23. a. People should always feel sorry for their wrongdoings.
b. People need not always feel sorry for their wrongdoings.

PART II

Example: 1. Example: 1. I feel lost unless I know what time it is.

Example: 2. For me, life will start again, after I get out of prison.

1. I sometimes think about what great excitement and happiness the future will bring for me.
2. Right now, everything seems at a standstill for me.
3. The subject of history holds little interest or attraction for me.
4. I rarely, if ever, am interested in science fiction.

5. I wish I were finished with what I am doing at this point in my life, and could move on to other things.
6. I see little value or worth in thinking about the future.
7. Places like museums, that show things from the past, bore me.
8. Most of my actions and thoughts these days are to get ready for the future.
9. My family and I are not the kind of people who like to make a big deal out of holidays.
10. My years of greatest happiness still lie ahead.
11. I have very little idea of what I would like to do with the rest of my life.
12. I am waiting for the next part of my life to begin.
13. I would like to live in the far distant future instead of now.
14. Thoughts about the past are among life's treasures, and are very dear to me.
15. I would like to write down my own life story someday, if only for my own pleasure and satisfaction.
16. I sometimes think about what the world and my daily life will be like in the years ahead.
17. I believe it is important to learn man's past cultural traditions and customs, and pass their richness on to others.
18. I am not one for saving things from my earlier years.
19. I am often depressed or bored.
20. I have rarely, if ever, felt homesickness.
21. I have few memories from my own past.
22. I sometimes think of a far distant day when life will be peaceful and happy.
23. My life is like a piece of wood drifting down an unknown river.
24. I know very little about my ancestors, forefathers and family tree.
25. The future is so unknown and uncertain that there is little that I can do to get ready for it now.
26. I am already enjoying and liking most of the things that will give my life meaning and purpose in the future.
27. I have no feeling of order, direction or purpose in my life.
28. I like life just the way it is now.
29. I almost never think about what I will be like when I am older.
30. I would be very upset and bothered if I knew that the rest of my life would be like my present days.
31. I enjoy thinking about what life will be like in a hundred years and beyond.